Department of Environmental Conservation

Division of Environmental Remediation

Record of Decision
General Electric Main Plant Site
Operable Units No. 03 and 04
City of Schenectady/Town of Rotterdam
Schenectady County, New York
Site Number 4-47-004

March 2005

New York State Department of Environmental Conservation
GEORGE E. PATAKI, *Governor* DENISE M. SHEEHAN, *Acting Commissioner*

- Sediments in the Poentic Kill adjacent to the former East Landfill contained PCBs with concentrations ranging from 0.127 ppm to 0.783 ppm, which are above the NYSDEC's sediment screening criteria. PAHs and metals were also detected in sediments at concentrations that exceed the NYSDEC's sediment screening criteria.

- PCBs, VOCs, and metals were detected in seeps from the East Landfill at concentrations that exceed NYSDEC's groundwater standards. PCBs found in the seeps are sorbed to suspended particles.

- Iron was the only compound detected in Poentic Kill surface water samples at concentrations that exceeded NYSDEC surface water standards.

- PCBs were detected in biota samples collected near the seeps at concentrations that exceed NYSDEC's standards. Both vertebrates (fish and frog) and invertebrates (crayfish) were collected and analyzed for PCBs. Where detected, the total concentrations of PCBs in two crayfish samples ranged from 0.2 ppm to 0.209 ppm. The total PCB concentration in a frog sample was 0.26 ppm. The total PCBs in fish samples ranged from 0.0529 ppm to 4.92 ppm. The highest PCB concentrations were found in fish collected near the seeps

Large areas of the site, especially in and around the former landfill areas, were found to support a wide array of vegetation and wildlife. Communities of terrestrial flora were found to be diverse and healthy and are not considered to be adversely impacted by site contaminants. Faunal results from the RI and SLERA indicate the potential for adverse affects, primarily due to elevated PCB concentrations in suspended seep sediment and seep water coming from the former East Landfill. Sediments contained levels of PCBs in excess of the sediment screening criteria, but below the threshold concentration (1 ppm total PCB) that would typically drive sediment removal efforts. Interim Remedial Measures implemented at the seep areas in 2000 are effectively removing the source of PCBs to the sediments.

Site contamination has impacted the groundwater resource in the fill and floodplain and channel fill aquifers. The site is located over the highly productive aquifer that services the City of Schenectady and Town of Rotterdam wellfields located approximately 3,000 feet to the northeast. The part of the aquifer under the site is not currently used for public water supply.

Contaminants in groundwater do not appear to have adversely affected the quality of surface water in the on-site aquatic habitats, despite indications that shallow groundwater discharges to the Poentic Kill and Poenties Kill near the former landfills. Off-site contamination (soil, sediment, surface water, or groundwater) was not found during the course of site investigations. No site-related contamination was found in the adjacent Mohawk River.

SECTION 6: SUMMARY OF THE REMEDIATION GOALS

The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

Alternatives 1 and 2 provide the least disruption to the existing resources and ecosystems. However, they provide no active measures to protect the natural resources (soil, groundwater, surface water) beyond the continuation of existing IRMs. The agronomic cover included as part of Alternatives 3, 4, and 6 will act to enhance the habitats, while protecting the on-site fauna from direct contact with contaminants.

Alternatives 2 through 6 include institutional controls that will protect the human health of site workers and other potential site users . These controls would also continue the no risk condition that was shown in the Baseline Human Health Risk Assessment (BHHRA).

Alternatives 4, 5, and 6 include additional measures to add levels of protection to the Poentic Kill and the Mohawk River. Alternatives 4 and 6 achieve this with measures that enhance the habitat areas, causing only limited temporary disruption to the existing habitats during implementation. Construction of Alternative 5 would cause the complete destruction of the site habitats and destroy portions of adjacent wetlands.

Alternatives 4 and 5 include more measures to protect and improve the quality of on-site groundwater than Alternatives 1, 2, 3, and 6.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the NYSDEC has determined to be applicable on a case-specific basis.

Alternatives 6 will enable the channel fill groundwater at the site boundary to meet groundwater standards in a shorter time than Alternatives 1 through 5 would, but would not provide treatment of the principal VOC source areas. Alternatives 3 through 5 would likely achieve groundwater standards at the site boundary in a shorter time than Alternatives 1 and 2 because they include remedial measures that target areas of elevated VOC concentrations.

Alternatives 3, 4, and 5 will enable on-site groundwater to achieve groundwater standards before Alternatives 1, 2, and 6 because Alternatives 3, 4, and 5 include treatment of the principal VOC source areas. With Alternatives 1, 2, and 6, the channel fill groundwater beneath the site would not achieve groundwater standards for the foreseeable future.

Data confirms that the water quality of the Mohawk River has not been adversely impacted by the VOCs that are present in the on-site groundwater and that the water in the Mohawk River is currently in compliance with Class A surface water standards for VOCs. Alternatives 3 through 6 include groundwater

from several locations in the Mohawk River upstream of the former mouth of the stream (these did not show site-related contamination), though no samples were taken specifically where the former Binnie Kill entered the Mohawk.

Comment 4: Is the leachate from the landfills going somewhere?

Response 4: There are several leachate seeps that were observed entering the Poentic Kill along the western boundary of the former East landfill. These have been extensively sampled and are currently being collected and treated as part of the East Landfill Seep Interim Remedial Measure.

Comment 5: Comment was made that it was hard to believe the Mohawk River was not contaminated from the site given the amount of waste that may have gone downstream during the years of plant operation.

Response 5: While there is no specific information that site wastes were disposed into the surface water in the vicinity of the plant, the positive findings from the Remedial Investigation are that sediment and surface water sampling in the Mohawk River do not indicate site-related impacts.

Comment 6: Regarding underground storage tanks - how many? What were they used for? What condition were they in when they were removed? Are all remaining tanks in compliance with DEC regulations?

Response 6: A large number of underground storage tanks of all sizes, uses, and condition were found at the site. A detailed evaluation of these was done during the Underground Storage Tank Interim Remedial Measure. This effort resulted in the investigation and evaluation (and in many cases, removal) of approximately 430 underground storage tanks. Any product storage facilities, including tanks, currently in use at the plant are in compliance with applicable regulations.

Comment 7: What are the sizes of the former landfills?

Response 7: The former Binnie Kill Landfill is approximately 7-acres, the former East Landfill is approximately 60-acres, and the former West Landfill covers approximately 54-acres.

Comment 8: What standards and criteria were used in our evaluations?

Response 8: Data from the site investigations were compared to the following standards, criteria, and guidance (SCGs):

- Groundwater, drinking water, and surface water SCGs are based on

interested parties. By contrast, the GE Main Plant is much smaller and is located within the confines of the City of Schenectady and Town of Rotterdam. More importantly, the Hudson River site also has been demonstrated to be impacting natural and potential public health resources. Drinking water, recreational water resources, sediments, and fisheries are impacted by the disposal that occurred into the river. Again, by contrast, investigations at the GE Main Plant site do not indicate any off-site impacts and the health risk assessment did not reveal any significant public health threat from the site. Thus, the public participation effort for the site, which is typical of that performed for most sites in the NYSDEC remedial program, is deemed sufficient.

Comment 24: Are the municipal well fields to the west (City of Schenectady and Town of Rotterdam) contaminated and are they being treated?

Response 24: The Town of Rotterdam well field wells (the northernmost well field, closer to the river) have had very low level (below drinking water standards) detections of chlorinated volatile organic contaminants. The City wells, located approximately between the GE site and the Rotterdam wells have not had any detections. As the contaminant concentrations in the municipalwells are below health-based drinking water standards, no treatment is currently being conducted. These wells are routinely monitored at a frequency prescribed by the county health department.

Comment 25: What kind of treatment is done at the GE Main Plant wastewater treatment plant? Is it in compliance with the new storm water discharge regulations? Does all the site drainage go to the WWTP?

Response 25: The treatment plant at GE is a primary treatment plant for non-contact cooling waters, storm waters, and sanitary wastes from the site buildings. It is not used for treatment of any site industrial wastes (all of those wastes are managed and taken off-site for treatment and disposal at permitted facilities). The system can currently handle up to 60 million gallons per day (MGD), with overflow capacity in the event of a large storm event to handle 100 MGD. The system is in compliance with all applicable regulations. Large portions of the site, particularly developed areas in the central manufacturing area, are connected to the storm water drainage system.

Comment 26: Did NYSDOT or NYSDEC do any sampling associated with the recent culvert replacement under 890?

Response 26: The NYSDEC did not do any environmental sampling during the culvert replacement.

Comment Letters Received - Specific Questions and Answers